

REMARKS

Claims 1-28 are pending. Claims 6, 13, 18 and 23 are amended; and claim 28 is added herein.

Claim 23 is objected to for failing to end with a period. Claim 23 has been amended to overcome this objection. Therefore, the objection should be withdrawn.

Claims 1-27 are rejected under 35 U.S.C. §112, second paragraph. Applicants' respectfully traverse the rejection.

Pursuant to 35 U.S.C. §112, second paragraph, the claims must particularly point out and distinctly define the metes and bounds of the subject matter that will be protected by the patent grant. The primary purpose of this requirement is to ensure that the scope of the claims is clear so that the public is informed of the boundaries of what constitutes infringement of the patent. See MPEP §2173.

Breadth of a claim is not to be equated with indefiniteness. In re Miller, 441 F.2d 689, 169 USPQ 597 (CCPA 1971). If the scope of the subject matter embraced by the claims is clear, and if applicants have not otherwise indicated that they intend the invention to be of a scope different from that defined in the claims, then the claims comply with 35 U.S.C. 112, second paragraph.

MPEP §2173.04

The attachment of linker L to nucleotide analog W is clearly a covalent bond. The specific atom of the nucleotide analog W to which the linker L is bonded is not specifically defined in the claims. However, this does not render the claims indefinite. Instead, it would have been understood by one of ordinary skill in the art that compounds having the claimed structure, regardless of the atom of nucleotide analog W to which the linker L is attached, are within the present claims. The fact that a claim may broadly define a feature does not mean that the claim is indefinite. Instead the standard for indefiniteness is whether or not the claim

reasonably apprises one of ordinary skill in the art of the scope of the claim. It is respectfully submitted that the present claims clearly do.

In addition, the term "nucleotide analog" is clearly defined in the present specification. In particular, at page 5, the term "nucleotide analog" is clearly defined as a nucleoside or a nucleotide, or a nucleoside or a nucleotide carrying one or more modifications on one of the constituent elements of said nucleoside or nucleotide." The fact that this definition does not specifically recite all of the modifications encompassed by the term does not render the term indefinite. Instead, one of ordinary skill in the art would clearly recognize a nucleoside or nucleotide that is carrying one or more modifications on one or more of its constituent elements. Therefore, the term is not indefinite.

Furthermore, the term L has been sufficiently defined as "comprising at least four atoms." As indicated in the Office Action, the phrase is open-ended and includes any combination of atoms, as long as the combination of atoms includes at least four atoms. The fact that the phrase is open-ended does not render the term L indefinite. Instead, one of ordinary skill in the art can clearly recognize a chemical structure that comprises at least four atoms.

Claims 6 and 18 have been amended to define the variable B. This amendment to claims 6 and 18 provides antecedent basis for the phrase "the nitrogen-containing base" in claims 7 and 19.

Claims 9 and 21 properly depend on claims 1 and 13, respectively, since the structure recited in claims 1 and 13 is not limited to a nucleotide and instead is directed to a "nucleotide analog," which as discussed above includes, for example, a nucleoside carrying one or more modifications, which, of course, need not contain a phosphate attached to the 2', 3', or 5' position.

Claim 13 has been amended to clarify the interaction between the functionalized compound and the labeling reagent.

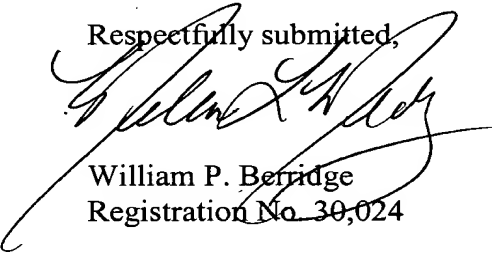
The claims clearly recite the invention. Therefore, the rejection under 35 U.S.C. §112, second paragraph, should be reconsidered and withdrawn.

Claim 28 has been added to further define the invention. Claim 28 depends on claim 1 and recites that L is attached to W at a nitrogen-containing base of said nucleotide analog. This claim is patentable for at least the same reasons as claim 1.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-28 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



William P. Berridge
Registration No. 30,024

Melanie L. Mealy
Registration No. 40,085

WPB:MLM/jam

Date: October 15, 2003

OLIFF & BERRIDGE, PLC
P.O. Box 19928
Alexandria, Virginia 22320
Telephone: (703) 836-6400

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--